ER-2 #809 09/22/13

Aircraft: ER-2 - AFRC #809 (See full schedule)
Flight Number: 13-9068
Payload Configuration: SEAC4RS
Nav Data Collected: Yes
Total Flight Time: 8.1 hours
Submitted by: Chris Miller on 09/23/13
Flight Segments:

From:	EFD	**To:**	EFD
Start:	09/22/13 12:30 Z	**Finish:**	09/22/13 20:33 Z
Flight Time:	8.1 hours		
Log Number:	132301	**PI:**	Kent Shiffer
Funding Source:	Hal Maring - NASA - SMD - ESD Radiation Science Program		
Purpose of Flight:	Science		
Comments:	The objectives for this flight were race tracks over shallow convection, dips through convective outflow, and Aeronet site overflight. The ER-2 and SPEC Lear jet were coordinated for the first set of race tracks over the Gulf near Galveston. The rest of the flight was done solo. All instruments operated and the aircraft returned in good shape.		

Flight Hour Summary:

	132301
Flight Hours Approved in SOFRS	166
Total Used	164.6
Total Remaining	1.4

132301 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
08/01/13	13-9048	Check	3	3	163	
08/02/13 - 08/03/13	13-9049	Science	6.5	9.5	156.5	
08/06/13 - 08/07/13	13-9050	Science	8.4	17.9	148.1	
08/08/13	13-9051	Science	7.2	25.1	140.9	
08/12/13	13-9052	Science	7.9	33	133	
08/14/13	13-9053	Science	6	39	127	
08/16/13	13-9054	Science	7.8	46.8	119.2	
08/19/13	13-9055	Science	8.1	54.9	111.1	
08/21/13	13-9056	Science	7.3	62.2	103.8	
08/23/13	13-9057	Science	7.7	69.9	96.1	
08/27/13	13-9058	Science	7.2	77.1	88.9	
08/30/13	13-9059	Science	7.4	84.5	81.5	
09/02/13	13-9060	Science	8.2	92.7	73.3	
09/04/13	13-9061	Science	8.4	101.1	64.9	
09/06/13 - 09/07/13	13-9062	Science	8	109.1	56.9	
09/09/13 - 09/10/13	13-9063	Science	8.1	117.2	48.8	
09/11/13 - 09/12/13	13-9064	Science	7.6	124.8	41.2	
09/13/13	13-9065	Science	8	132.8	33.2	
09/16/13	13-9066	Science	8	140.8	25.2	
09/18/13	13-9067	Science	7.9	148.7	17.3	

09/22/13	13-9068	Science	8.1	156.8	9.2
09/23/13	13-9069	Science	7.8	164.6	1.4

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

SEAC4RS - ER-2 #809 09/22/13 Science Report

Mission: SEAC4RS
Mission Summary:

Flight Report – SEAC4RS ER-2, September 22, 2013

Prepared by: Richard Ferrare (richard.a.ferrare@nasa.gov)

Purpose of flight: The science goals for this flight were to: 1) acquire remote sensing data over shallow marine convection coordinated with the Lear Jet, 2) acquire remote sensing data over cirrus coordinated with the Lear Jet, 3) acquire polarimeter data over the AERONET network in the Houston, 4) examine convective outflow associated with a cold front over the Gulf Coast states during two dips to 41 kft, 5) perform MMS maneuvers at 40 kft over EFW.

Pilot: Denis Steele

Takeoff: 7:30 CDT

Duration: 8.0 hours

Notes:

The ER2 flew SE over the Gulf and did a small circle to reach altitude before heading to the first racetrack pattern just offshore. The ER-2 performed this racetrack with 150 km legs above the marine stratocumulus. In order to optimize coordination time with the Lear Jet, the ER-2 performed three circuits around this racetrack. The ER-2 and Lear Jet were well coordinated as they flew this pattern. The ER-2 then flew southeast and to the east performing a dip to 41 kft to look at convective outflow south of the cold front that was located near the Gulf coast. The ER-2 then flew northward and performed another dip to 41 kft en route to the northeastern point. During this transit, the Lear Jet reported that they were unable to make the second rendezvous with the ER-2 to study cirrus. The ER-2 then performed two circuits around another 150 leg racetrack pattern over cirrus above the Louisiana Gulf coast. CPL images showed that the cirrus had variable maximum altitudes behind this cold front. The ER-2 then flew to the northwest before turning southwestward toward Houston. The ER-2 then flew a 300 km leg toward and over Houston. The last portion of this leg was over the AERONET network over Houston. There were some mid-level clouds over Houston when the ER-2 flew over. Before landing, the ER-2 performed MMS maneuvers at 40 kft.

Aircraft and instruments: All instruments appear to have worked nominally as far as limited in-flight and quick-look analyses showed. All instruments are ready for the next flight.

Images:

ER-2 September 22

Read more

File:
seac4rs_er2_22_Sep.pdf

Submitted by on 09/23/13

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